



PCT/GB 2003 / 0 0 5 0 7 6

68/03/5076



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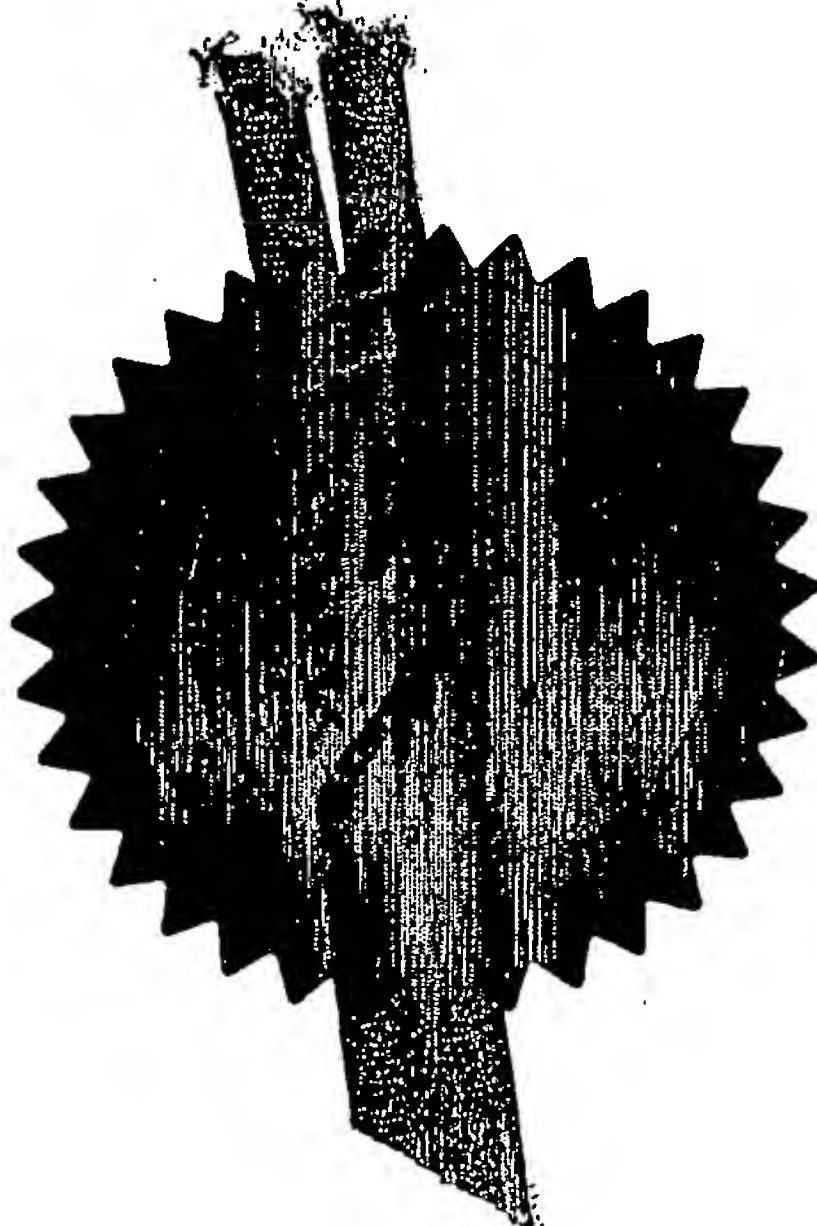
I, the undersigned, being an officer duly authorised in accordance with Section 74(1) and (4) of the Deregulation & Contracting Out Act 1994, to sign and issue certificates on behalf of the Comptroller-General, hereby certify that annexed hereto is a true copy of the documents as originally filed in connection with the patent application identified therein.

I also certify that the application is now proceeding in the name as identified herein.

In accordance with the Patents (Companies Re-registration) Rules 1982, if a company named in this certificate and any accompanying documents has re-registered under the Companies Act 1980 with the same name as that with which it was registered immediately before re-registration save for the substitution as, or inclusion as, the last part of the name of the words "public limited company" or their equivalents in Welsh, references to the name of the company in this certificate and any accompanying documents shall be treated as references to the name with which it is so re-registered.

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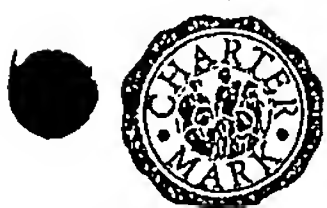


Signed

Dated 17 December 2003

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GB0317928.0

By virtue of a direction given under Section 30 of the Patents Act 1977, the application is proceeding in the name of

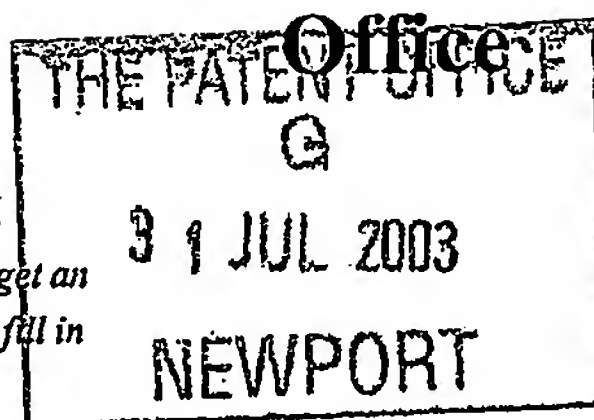
MACONELE LICENSING LIMITED,  
66 Wigmore Street,  
LONDON, W1U 2HQ,  
United Kingdom

Incorporated in the United Kingdom

[ADP No. 08753402001]

**Request for grant of a patent**

(See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)



The Patent Office  
Cardiff Road  
Newport  
South Wales  
NP10 8QQ

1. Your reference

12305:JK

2. Patent application number  
(The Patent Office will fill in this part)

0317928.0

31 JUL 2003

3. Full name, address and postcode of the or of each applicant (underline all surnames)

Atomic MK Limited  
Maidstone Road  
Kingston  
Milton Keynes MK10 0DB  
United Kingdom

Patents ADP number (if you know it)

If the applicant is a corporate body, give the country/state of its incorporation

SECTION 30 (1977 ACT) APPLIED

10.11.03.  
A/L 14/10/03.

8370322001

4. Title of the invention

Display Device

5. Name of your agent (if you have one)

Saunders & Dolleymore

"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)

9 Rickmansworth Road  
Watford  
Hertfordshire WD18 0JU

Patents ADP number (if you know it)

1453001

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number

Country	Priority application number (if you know it)	Date of filing (day/month/year)
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7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application	Date of filing (day/month/year)
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8. Is a statement of inventorship and of right to grant a patent required in support of this request? (Answer 'Yes' if:  
a) any applicant named in part 3 is not an inventor, or  
b) there is an inventor who is not named as an applicant, or  
c) any named applicant is a corporate body.  
See note (d))

YES

Patents Form 1/77

9. Enter the number of sheets for any of the following items you are filing with this form.  
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Continuation sheets of this form

Description 6

Claim(s)

Abstract

Drawing(s) 3 + 3

10. If you are also filing any of the following, state how many against each item.

Priority documents

Translations of priority documents

Statement of inventorship and right to grant of a patent (*Patents Form 7/77*)

Request for preliminary examination and search (*Patents Form 9/77*)

Request for substantive examination (*Patents Form 10/77*)

Any other documents  
(please specify)

11. I/We request the grant of a patent on the basis of this application.

*Saunders & Dolleymore*

Signature

Saunders & Dolleymore

Date

30 July 2003

12. Name and daytime telephone number of person to contact in the United Kingdom
- John Kensett  
01923 238311

Warning

*After an application for a patent has been filed, the Comptroller of the Patent Office will consider whether publication or communication of the invention should be prohibited or restricted under Section 22 of the Patents Act 1977. You will be informed if it is necessary to prohibit or restrict your invention in this way. Furthermore, if you live in the United Kingdom, Section 23 of the Patents Act 1977 stops you from applying for a patent abroad without first getting written permission from the Patent Office unless an application has been filed at least 6 weeks beforehand in the United Kingdom for a patent for the same invention and either no direction prohibiting publication or communication has been given, or any such direction has been revoked.*

Notes

- a) If you need help to fill in this form or you have any questions, please contact the Patent Office on 0645 500505.
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### Display Device

This invention relates to a display device. In particular, but not necessarily, it relates to a device for displaying advertising or promotional material or a point of sale display device.

According to the present invention there is provided an display device comprising a plurality of parallelepipeds arranged in a stack, each parallelepiped having a resilient means for urging it from a closed position, in which it lies generally flat, to a fully opened position, the structure being foldable from a first position at which the stack of parallelepipeds are fully open to a second position at which they are fully folded to enable it to fit within an envelope.

The stack may, but need not necessarily, be mounted upon a base, which may comprise a flat sheet.

The device preferably includes a foldable sheet which is hingedly attached to the base and connected to a face of the stack such that in the first position the sheet is substantially planar and in the second position the sheet is flattened concertina fashion, the sheet bearing a desired image, such as an advertising image, on its main face.

Each parallelepiped preferably includes a member, which bears at least part of the resilient means, and defines the fully opened position. This may be a diagonal member fixed to the junction between one adjacent pair of panels of the parallelepiped and adapted to impinge upon the diametrically opposite junction when the parallelepiped is fully opened.

The resilient means is preferably one or more elastic bands or similar, located appropriately.

In a preferred embodiment, there are five parallelepipeds.

According to the invention, there is further provided a blank comprising a sheet adapted to form the stack of parallelepipeds as defined above.

5

The structure is preferably at least 50 cm high when erected. It may be over 50 cm high or over 100 cm high.

10 In one example comprising five parallelepipeds, each parallelepiped has a length of above 21 cm, so the height of the device when fully erected is about 105 cm.

An embodiment of the invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

Figure 1 shows the structural portion of an ornamental device;

15 Figure 2 shows one of the parallelepiped structures of the device;

Figure 3 is an explanatory diagram;

Figure 4 shows the device of Figure 1 in a partly folded position; and

Figure 5 shows a blank for constructing part of the structure of Figure 1.

20 The following description is of a greetings card. The invention is, of course, not limited to a greetings card structure.

Referring to Figure 1, a display device, in the form of a point of sale display device, is made of cardboard, paper or a similar material and comprises a base 1. A rectangular  
25 planar sheet 2 is attached to one end of the base 1 to extend upwards from the base. Sheet 2 includes a plurality of transverse fold lines 3. A stack of parallelepipeds 4 is mounted on base 1 to lie against sheet 2. Alternatively, base 1 and/or sheet 2 may be omitted in certain embodiments.

30 The view shown is intended to be a rear view in practice, and the other side (the



front side) of sheet 2 will bear a decorative feature such as an advertising image, picture and may be cut to suitable shape as desired (ie need not be rectangular). This will form the display element of the device, in which case the stack 4 forms the support structure. If sheet 2 is omitted, the picture or other material can be affixed onto the rear faces of the parallelepiped stack. Many methods of affixing an image to a sheet, or of cutting a sheet to a particular shape, are well known. In one example, the picture or image and/or shape may be of a bottle, bearing a particular branding, for example.

The parallelepiped stack comprises, in this embodiment, five parallelepipeds 4a to 4e, stacked one on top of the other. Figure 2 shows one of these. As shown, the structure comprises a front and back panel 5, 7, a top panel 8 and a bottom panel 6. Panels 6 and 8 are always parallel to each other, as are panels 5 and 7. The structure is open at the sides. A diagonally disposed member is fixed to the junction between panels 6 and 7 and is of such a length that it extends to the junction between planes 5 and 8, when the parallelepipeds is erect as shown. It is, however, not connected to this latter mentioned junction. Each parallelepiped may be formed in one piece, having four transverse folds for folding upon itself, or may be formed in two or more pieces. Diagonal portion 9 may be provided with one indent 10 along each of the open sides of the parallelepiped. A resilient means, such as an elastic band, is mounted by means of holes (not shown) in the device to lie in a rectangle towards the periphery of the diagonal member 9. As shown in Figures 1 and 2, the band is preferably arranged to lie on top of the diagonal member 9 for half the length of on side and then to pass through indentation 10 to lie underneath it along the other half of the member. It then passes along the back of a plane of the parallelepiped and comes again, down the opposite side of the a diagonal member, crossing sides at the indentation. Passing the elastic band through the plane of the diagonal member at the indentations allows a more even force to be distributed upon the diagonal member and prevents buckling of this.

As shown, the band passes along the junction of plane 5 and plane 8. Thus, if a downwards force is applied to plane 8, as shown in Figure 3, then the angles between the

panels of the parallelepiped will change, and one end of the diagonal member 9 will be drawn away from the junction between planes 5 and 8. The elastic band, which is connected at or near the two diametrically opposite lines extends. It therefore provides a resilient force tending to urge the planes back into the erect parallelogram disposition shown in Figure 2. It will be appreciated that the structure can be further compressed against the resilient force, until plane 8 lies virtually superimposed upon plane 5 and a substantially flat structure is obtained.

Alternatively, the resilient means (such as elastic bands) may be otherwise located or disposed on the diagonal portions to achieve the same resilient erecting effect. The diagonal portion need not have the indents. They may be provided with through holes in any desired location, or other means for providing location for elastic bands or other resilient means.

Referring briefly back to Figure 1, it is seen that the diagonal portions of adjacent parallelepiped structures extend in generally opposite directions to one another. That is, they alternatively face to the right and to the left in the figure.

In use, the structure is folded concertina fashion, as shown in Figure 4, perhaps to fit into a storage pouch or envelope. Firstly, the lower most portion of sheet 2, 2a, is hingedly folded with respect to base 1. This pushes the adjacent side panel of parallelepiped 4a to the position shown in Figure 4. Portion 2b can then be folded back as shown in the figure, and so on until a concertina structure is formed as shown. Downward pressure upon the top most part of the structure serves to almost flatten the structure so as to be easily portable. Note that the elastic bands have been omitted from Figure 4 for clarity but, in the folded position will be resiliently urging the structure into an opened position against a force exerted by pushing/holding the parts together. Upon withdrawal from the pouch, or release of pressure holding the structure closed, the elastic bands 11 urge the structure into its fully opened, form shown in Figure 1, where the image on the front of sheet 2 can be viewed. Thus, the invention provides a convenient method of obtaining a relatively tall and



extensive display from a structure which can fit into a relatively small pouch, or alternative easily be hand carried.

As will be appreciated, more or less than five, for example two, parallelepipeds may be used and these may be of any suitable size, dependent upon, inter alia, the size of envelope. The height of one embodiment, up to the top of sheet 2 is, as described, about 100 cm but any other height may be constructed. For example, a fold up 'bottle' shape may be made which fits into a storage pouch but extends to form an erect display.

Although each of the parallelepipeds may be separate, it is preferred to form the entire stack from one blank. Figure 5 shows a blank which is suitable for this. The blank is divided lengthwise into five columns of equal length and widthwise into six rows, the outer two rows being of a width equal to that of the diagonal portions of each parallelepiped and the central four having a width equal to the side and top and bottom panel portions. Slots are provided at the junctions between the end most rows and each of the columns approximately half way down and elongate in the row wise direction. These correspond to indentations 10 in Figure 1. A plurality of spaced holes 12 are also provided as shown in Figure 5.

To assemble the blank, it is first cut along each column along the solid line, leaving the dot-dashed vertical lines uncut. Dabs of glue or other adhesive material are then applied to the four positions indicated by hatching 13. Subsequently, starting from the right hand side of the figure, the right most column is folded upon itself to produce a parallelepiped structure having four panels forming a parallelogram in cross-section and a diagonal member formed by the end most portions of the column being laid superimposed and adjacent one another. The entire parallelepiped structure is then hingedly folded at line 12 and glued by means of adhesive 13 to the next column. This next column is then folded upon itself to form a second parallelepiped, which is again hinged at the next crease line 12 and adhered. This process is repeated for each column in turn until the final structure is obtained, which will be a stack of parallelepipeds as shown in Figure 1. This stack may

then be adhered to base portion 1 and attached to foldable sheet 2. It need not be adhered along the entire surface of the foldable sheet connecting panels and perhaps may only be adhered at a top end of each parallelepiped, or only at one or two portions of the structure. The elastic bands will, of course, be put into position through respective pairs of holes 14.

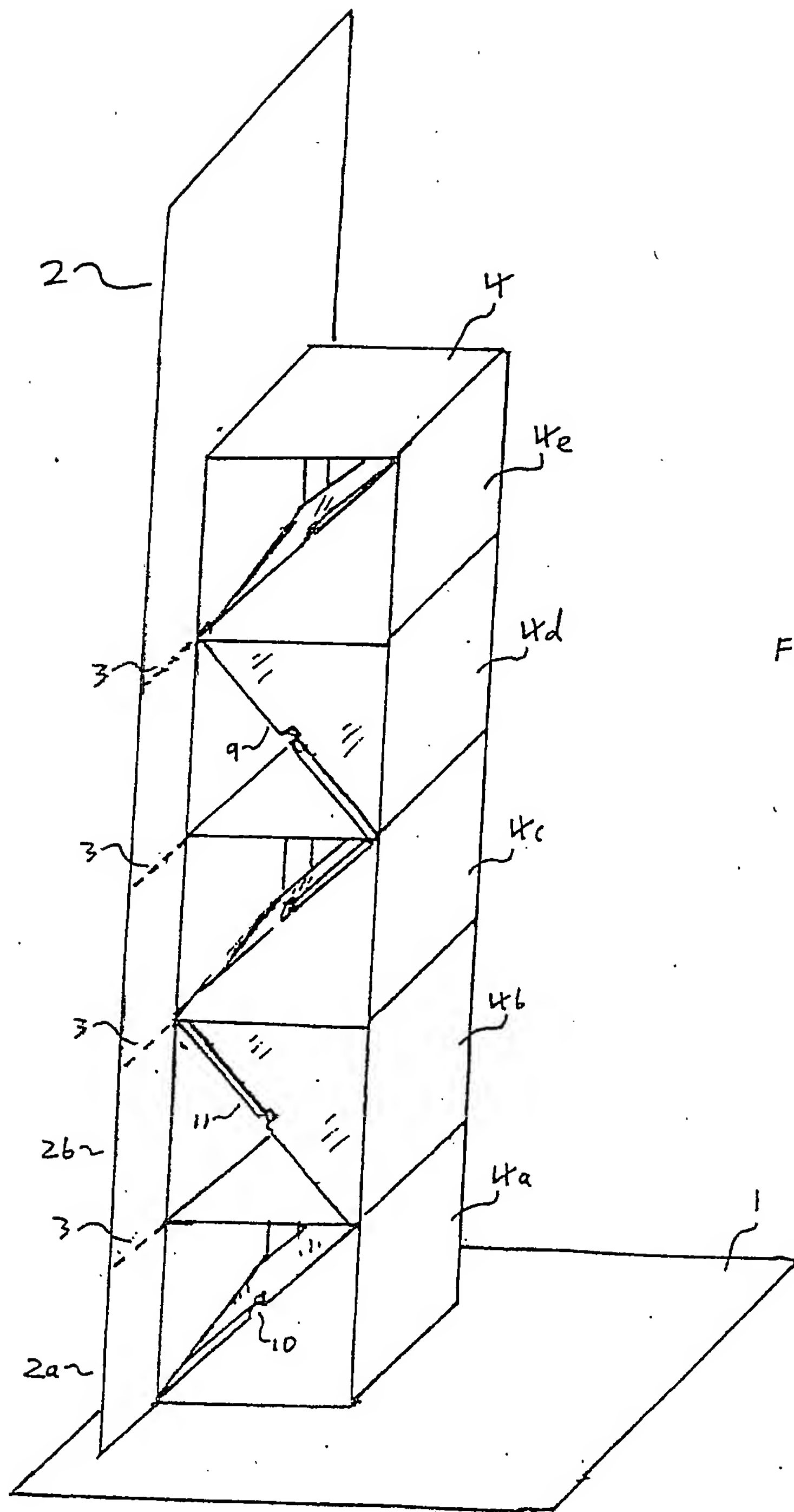
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FIG 1

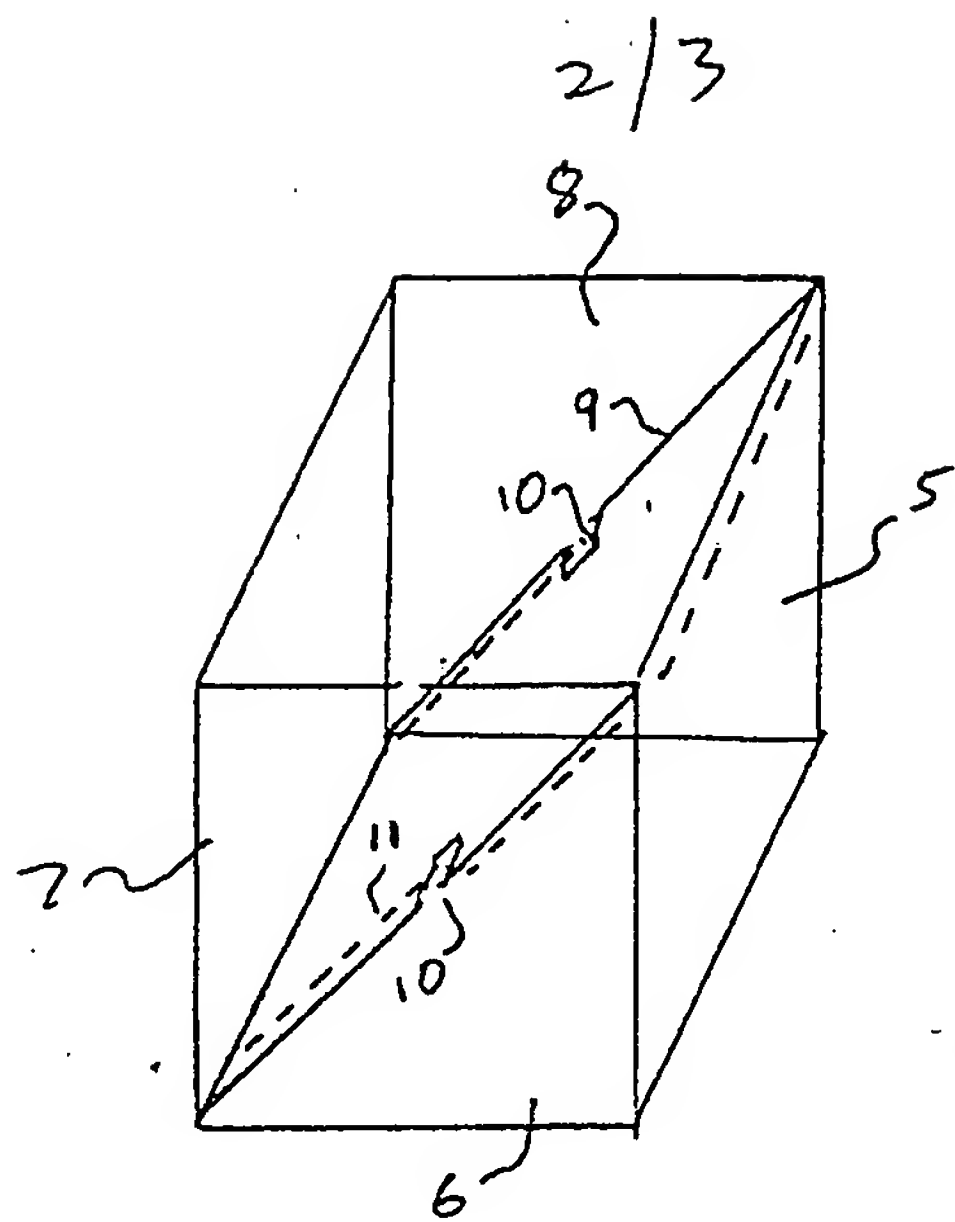


FIG 2

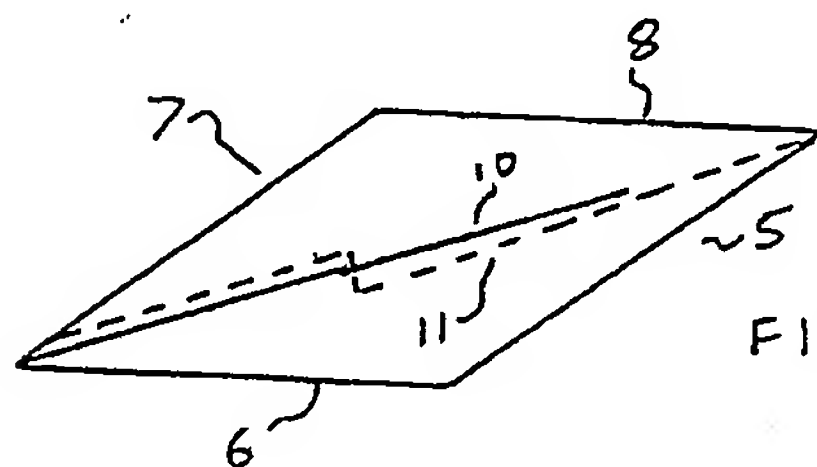


FIG 3

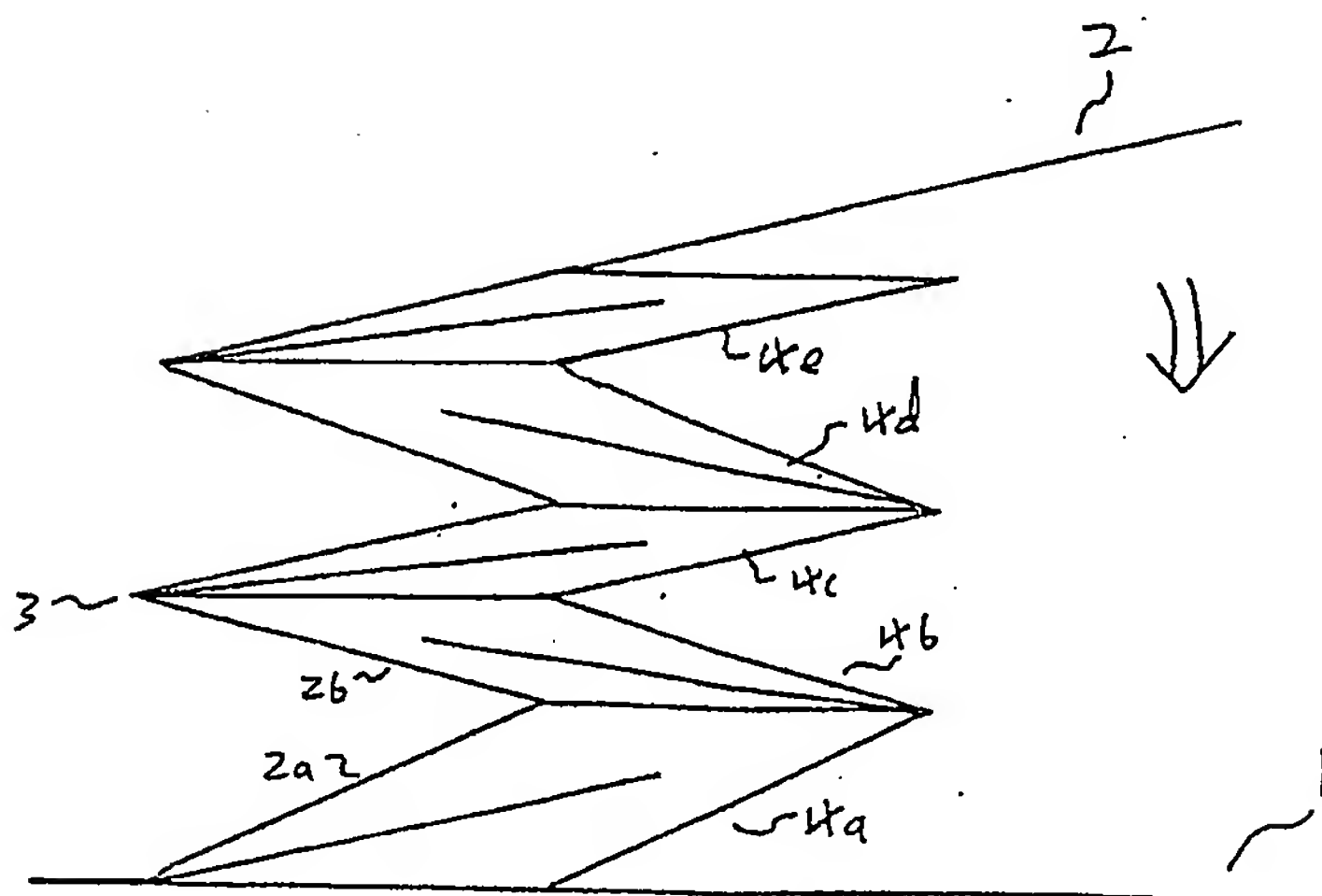


FIG 4

3/3

FIG 5

